Pest Update (April 4, 2012)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

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Plant development

We are way ahead of plant development this year with the warm late winter and spring. The Waneta plums are in bloom in Brookings, about three weeks ahead of normal. This means that we have to move up the chock on a number of gardening tasks, and yes, expect to start spraying a little earlier. I have noted some of the activities you might need to being now. However, mountain pine beetles spraying is not one of them. The beetles are not flying, nor are they about to fly so treatment during April and May is still appropriate (see more information under Current Concerns).

Current tasks to complete

Anthracnose and cane blight on raspberries can be controlled by applying lime sulfur now if you have not done so already. Remember to apply it *before* the buds break, not after as lime sulfur can be damaging to foliage. In addition to apply lime sulfur it would be a good idea to rake out any of the fallen leaves and prune out and destroy any infected canes.

Apple scab control start with a spray applied just as the buds are beginning to expand, less than a 1/4-inch of leaf showing. We are at that stage now in the southern half of the state. The first two apple scab fungicide treatments are critical to the successful control of this disease and if missed will significantly reduce effective control of the diseases even if the remaining sprays are properly timed. After the first spray, fungicide sprays are continued about every 7 to 10 days apart until after petal fall, after that the weather usually turns a little drier and a 10-14 day interval can be used until the end of June when applications generally stop. The most common fungicides used for control of apple scab have Captan or copper listed as the active ingredient. Captan is also the most common fungicide included in multi-purpose fruit tree sprays.

Pruning trees should be completed by now. Generally you want to avoid pruning trees while the buds are expanding and the leaves are opening. We are also at the end of the time period for pruning live branches from elms and oaks as fresh pruning wounds can attract the insects that carry Dutch elm disease and oak wilt. However, r**emove tree wrap from tree trunks.** These are no longer needed and they serve as egg-laying cover for ash borers and other insects.

Spruce needleminer larvae will begin moving to form their webbed nest and resume their feeding. A spray of high-pressure water will knock them off the tree and you can rake up the fallen needles (and larvae) after the spray. The other approach is spraying an insecticide with the active ingredient of either acephate or carbaryl to kill the larvae as they begin moving out onto the foliage. Remember to spray inside the canopy, not just the exterior.

Tent caterpillars can be treated right now by pruning out the egg masses (though see note below in E-samples). Tent caterpillars, eastern, forest and western, are common defoliators of mountainash, cherry, crabapples and plums. If you look at these trees right now you might find these small nests with very tiny caterpillars on them. If you tear open these small nests that alone may cause significant mortality as the nest provides protection for these insects.

Current Concerns

How about the mountain pine beetle? I am hearing a lot about that recent report from Colorado that said mountain pine beetles is now having two generations per year, rather than one. This is not as unusual as it appears in the newspaper. Mountain pine beetle takes two years to develop a single generation in the higher elevations of northern Montana, and there are two generations per year in the lower elevations of California. The development time relates to the regional climate.

While the winter in the Black Hills has been mild compared to past years, it has not been warm enough to significantly change beetle development. Kurt Allen, Forest Service entomology, and I took samples last Friday and found that most of the beetles were still in the larval stage, in fact fairly young in the larval stage (there is one small larva in the circled area of the above picture), just where they typically are at this time of year. We are not anticipating any major advancement of the flight. Landowners are reporting seeing adults beneath the bark but that is normal as there are always some overwinter adults.

There is still plenty of time to spray to protect valuable trees from successful attack by the mountain pine beetle. April and May are ideal months to spray the trees to protect them from the beetles. The beetle flight usually does not begin until early July and peaks about a week ahead of the Rally.

E-sample

A problem that people frequently try to solve by pruning is **black knot**, also known as dead man's finger, a very common fungal disease of cherry and plums. In fact the city of Winnipeg is about to remove or prune about 800 Shubert chokecherries that are covered with these 'knots'. These black, coal-like galls, sometimes covered with a white power, can often be found lining the branches and trunks of susceptible trees. A common recommendation is to prune out these galls during the winter months, but these activity has very limited value. First, these galls are the second year's infection. The shoots infected last year are only indicated by a slight greenish swelling of the tissue. If these shoots are not also removed they will grow to form the blacked masses the following year, as you can see it is hard to get ahead of the disease by pruning. The other problem is only certain trees are very susceptible to black knot and once they get the disease you can probably expect the tree to become infected again regardless of your pruning efforts. Basal pruning (cutting the tree down) is probably the best approach.

Shothole borer can be found in a number of trees species including most fruit trees. The name 'shothole' comes from the numerous exit holes, about bb size, that look like someone shot the branches or trunk. The insect tends to attack stressed trees so spraying is usually not a good control since the insect is more an indicator of a problem rather than being the problem.

Wetwood disease is a common aliment of cottonwood and elms across the state. This picture came from David in Campbell County and it shows the bleached streaking that occurs along the bark from this disease. The disease also manifests itself internally with an elevated pH and mineral content, more water and gas under pressure. Wetwood is a bacterial disease that is caused by bacteria found in a number of genera

including *Bacillus*, *Clostridium* and *Pseudomonas*. The internal liquid spreads into the outer sapwood and from there moves out of the tree through cracks in branch crotches or old pruning wounds. The bark bleaching is due to the high pH of this liquid. The disease is sometimes associated with symptoms of leaf scorch and yellows and sometimes even branch dieback. However, often the only symptom expressed by the disease is the streaking on the bark and otherwise the tree grows just fine. Regardless there are no effective treatments for the disease and drilling holes in the tree to relieve pressure may cause more problems than it cures.

Samples received

McPherson County **What might be wrong with this spruce? It may have been in some standing water for a little while last spring.**

This looks like desiccation injury and most likely due to the wet soils last spring limiting root growth (and water uptake) followed by a dry summer and fall that just made the problem worse.